From:	PETERSON Jenn L
To:	ANDERSON Jim M
Cc:	Eric Blischke/R10/USEPA/US@EPA
Subject:	Lamprey FSP Comments
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Here are my comments on the lamprey FSP:

General Comments:

There is no information provided here on the selected laboratory and whether they have the capability to carry out this testing. Can they conduct flow through tests, or will we be limited to static testing? How many organisms can they hold / test at one time? What is the source of the test water and what are the properties? This information may be in the QAPP, but given the short time available for review we should be asking these questions now.

Specific Comments:

Page 2 and 3, Sections 1.1.1 and 1.1.2: There chemicals of interested are listed here, but there is no discussion on why these chemicals were selected as representatives for testing. This should be provided.

Page 6, Section 2.4.1, Toxicity Testing Records and Page 14 Section 4.3: Daily records of mortality should be recorded, not just at the termination of the test. In addition, other changes in behavior or swimming ability should also be recorded daily and at the termination of the test, including morbidity and mortality.

Page 9, Section 2.5, Schedule: I would advocate sampling even if the temperature is below 10 degrees C. If ammocoetes are not collected, the sampling can be put off. However, this should not be the primary limitation to sampling.

Page 10, Section 3.1, Field Sampling: Why won't additional watersheds be targeted this fall for sampling? Is this a permit or a logistical limitation?

Page 12, Section 4.2, Phase 1 Testing: The range finding tests should not be static, but flow through tests. Some of the chemicals identified for testing are quite volatile, and it is likely that significant concentration of the chemical will be lost during testing. This would not allow the range finding tests to be accurate in identifying the range of contaminant concern for the more definitive tests, which are slated to be flow through tests (see page 13, Section 4.3). IF static testing is a must for this phase, then additional chemical analysis daily is necessary to help determine chemical loss over the test duration.

Page 13, Section 4.2, Phase 1 Testing: It is unclear why the lamprey will be fed during testing (the text states 2 hours prior to renewal at 48 hours). This could skew the results and uptake of the chemical. If the lamprey are fed, it should be a flow through system with a constant flux of food in the test water. I believe the Great Lakes protocol used yeast in the water.

Page 17 and 18, Sections 5.1 and 5.2, Analytical Laboratory and Chemical Analysis: Chemical analysis of the water should include both total and dissolved copper analysis. The water source is not detailed here (but should be), and given this organism is a filter feeder, it would be important to understand if there is a particulate phase, and the associated chemical

concentration. The discrepancy between the two analyses will give an indication of the water and contaminant binding properties of the test water. I am assuming the other analysis listed is for a total water concentration.